



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Tischler und Sohn (USA) Ltd.

Six Suburban Avenue

Stamford, CT 06901

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "Weight & Chain System" Single & Double Hung Wood Window – L.M.I.

APPROVAL DOCUMENT: Drawing No. 1828, Series titled "Single & Double Weight & Chain System Hung Impact Window", sheets 01 through 09 of 09, dated 07/02/12 with the latest revision dated 06/04/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami-Dade County Product Control Section Revision stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, **Wedel (Schleswig-Holstein), Germany**, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-0304.08 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**



J. Gascon
6/26/14

NOA No. 14-0428.17
Expiration Date: June 13, 2018
Approval Date: July 03, 2014
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under previous NOA No. 13-0304.08)
2. Drawing No. 1828, Series titled "Single & Double Weight & Chain System Hung Impact Window", sheets 01 through 09 of 09, dated 07/02/12 with the latest revision dated 06/0/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-0304.08)

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94along with marked-up drawings and installation diagram of a wood hung window, prepared by Architectural Testing, Inc., Test Report No. ATI-C261.01-109-18, dated 11/20/12, signed and sealed by Michael D. Stremmel, P. E.
(Submitted under previous NOA No. 13-0304.08)

C. CALCULATIONS

1. Anchor calculations and structural analysis, complying with FBC, dated 09/25/12, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-0304.08)
2. Glazing complies with ASTM E1300-04/ 09

D. QUALITY ASSURANCE

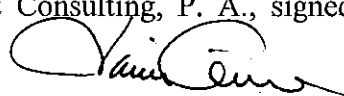
1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 12-1231.08 issued to **Eastman Chemical Company (MA)** for their "**Saflex CP – Saflex and Saflex HP Composite Glass Interlayers with PET Core**" dated 03/28/13, expiring on 12/11/18.

F. STATEMENTS

1. Statement letter of conformance to and complying with **FBC 5th Edition (2014)**, dated 04/15/14, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.


Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 14-0428.17
Expiration Date: June 13, 2018
Approval Date: July 03, 2014

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

2. Statement letter of conformance with ANSI/ AAMA/ NWWDA 101/ I.S.2-97 and complying with **FBC-2010**, dated 10/09/12, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-0304.08)
3. Statement letter of no financial interest and independence, dated 10/09/12, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-0304.08)
4. Laboratory compliance letter for Test Report No. **ATI-C261.01-109-18**, issued by Architectural Testing, Inc., dated 11/20/12, signed and sealed by Michael Stremmel, P. E.
(Submitted under previous NOA No. 13-0304.08)
5. Distributor Agreement between Tischler und Sohn (USA), Ltd., Connecticut, USA, and Tischler/ Cornelius Korn, G.m.b.H., Wedel (Holstein) S. H., Germany, dated 04/13/09, signed by Tim Carpenter and Wilhelm Korn, respectively.
(Submitted under previous NOA No. 13-0304.08)

G. OTHERS

1. Notice of Acceptance No. **13-0304.08**, issued to Tischler und Sohn (USA), Ltd. for their Series "**Weight & Chain System**" **Single & Double Hung Wood Window - L.M.I.**", approved on 06/13/13 and expiring on 06/13/18.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 14-0428.17
Expiration Date: June 13, 2018
Approval Date: July 03, 2014

GENERAL NOTES:

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

FRAME ANCHOR REQUIREMENTS TABLE

| OPENING TYPE (SUBSTRATE) | FRAME/CLIP/BACKET TO OPENING FASTENER TYPE | MINIMUM EMBED | MINIMUM EDGE DIST. |
|------------------------------------------------------|-----------------------------------------------|------------------|-----------------------|
| FRAME SCREWS | | | |
| MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55) | NO. 14 SMS/WOOD SCREW OR 1/4" BTI SCREW | 1 1/4" | 3/4" |
| MIN. 16 GA. 33 KSI METAL STUD | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL | 1/2" |
| MIN. 1/8" THK A36 STEEL | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL | 1/2" |
| MIN. 1/8" THK 6063-T5 ALUM. | 1/4" GR. 5 SELF TAP/DRILLING SCREW | FULL | 1/2" |
| (3) C-90 CMU | (1) 1/4" CONCRETE SCREW | 1 1/4" | 2" |
| 2500 PSI CONCRETE | (1) 1/4" CONCRETE SCREW | 1 3/4" | 2" |

INSTALLATION CLIP SCREWS

| | | | |
|----------------------------------------------------------|-----------------------------------|--------|------|
| (2) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55) | NO. 12 SMS OR WOOD SCREW | 1 3/8" | 3/4" |
| MIN. 16 GA. 33 KSI METAL STUD | NO. 12 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| MIN. 1/8" THK A36 STEEL | NO. 12 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| MIN. 1/8" THK 6063-T5 ALUM. | NO. 12 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| (3) C-90 CMU | (1) 1/4" CONCRETE SCREW | 1 1/4" | 2" |
| 2500 PSI CONCRETE | (1) 1/4" CONCRETE SCREW | 1 3/4" | 2" |

BTI BRACKET SCREWS

| | | | |
|----------------------------------------------------------|----------------------------------|--------|------|
| (2) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55) | NO. 8 SMS OR WOOD SCREW | 1 3/8" | 3/4" |
| MIN. 18 GA. 33 KSI METAL STUD | NO. 8 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| MIN. 1/8" THK A36 STEEL | NO. 8 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| MIN. 1/8" THK 6063-T5 ALUM. | NO. 8 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |

ANGLE CLIP SCREWS

| | | | |
|------------------------------------------------------|----------------------------------|---------|------|
| MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55) | NO. 8 SMS OR WOOD SCREW | 1 5/16" | 1/2" |
| MIN. 1/8" THK A36 STEEL | NO. 8 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |
| MIN. 1/8" THK 6063-T5 ALUM. | NO. 8 GR. 5 SELF TAP/DRILL SCREW | FULL | 1/2" |

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S. OR S.S.).
- (2) 2X_ BUCKS SHALL BE OF A MINIMUM DEPTH REQUIRED TO MEET ANCHOR EDGE DISTANCE REQUIREMENTS
- (3) CMU IS NOT APPLICABLE AT HEAD OR SILL.

SASH LOCK QUANTITY REQUIREMENTS

| FRAME WIDTH | QUANTITY PER SASH |
|-------------|----------------------|
| OVER 41" | 2 |
| 41" & LESS | 1 |

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.R.M. CHECKED BY: W.W.S.

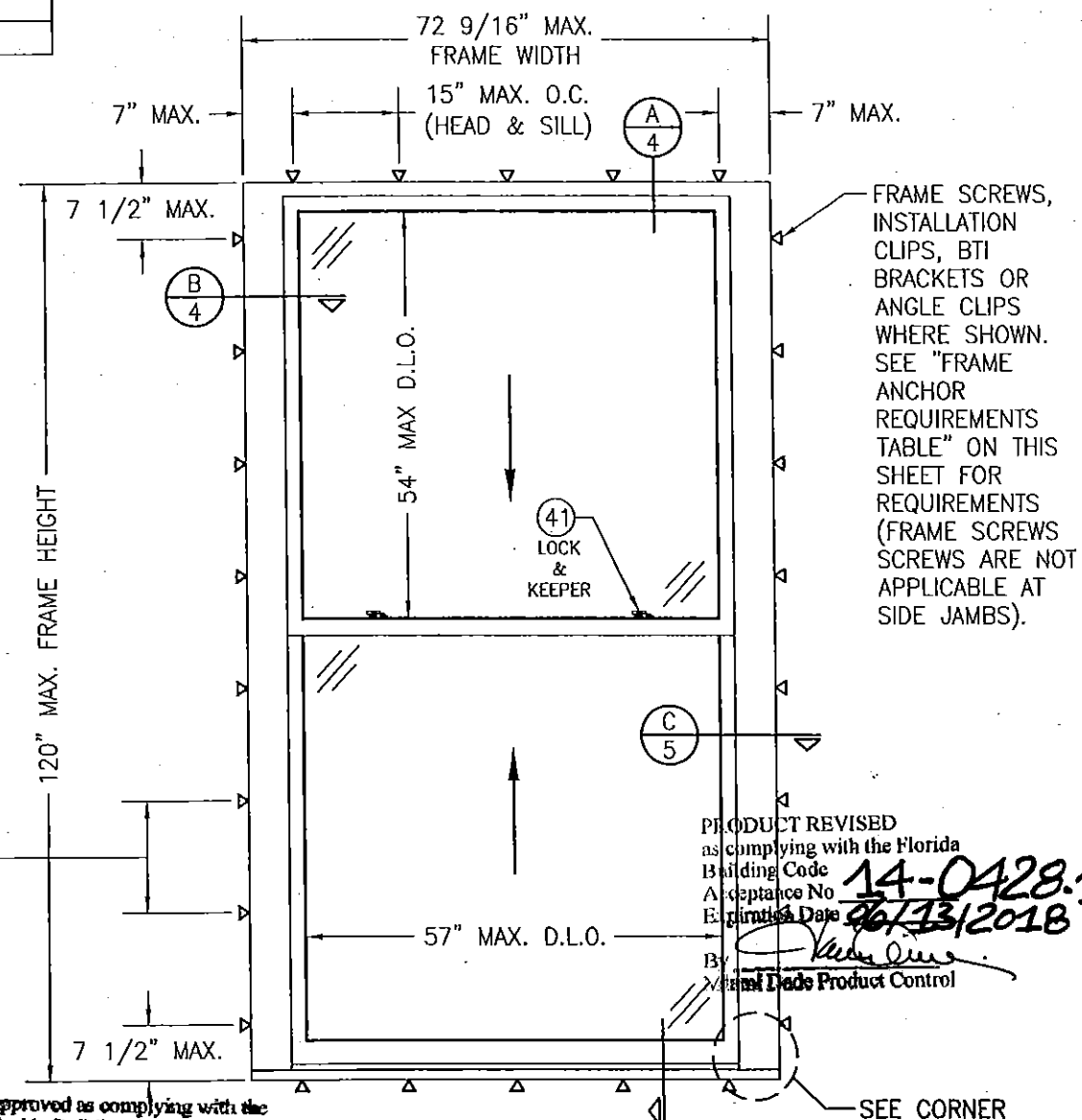
PLOT: 1-24 DATE: 07/02/12

| DATE | BY | REVISION DESCRIPTION | NO. |
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| | | | |
| | | | |

MANUFACTURER
TISCHLER UND SOHN (USA) LTD.
SIX SUBURBAN AVENUE
STAMFORD, CONNECTICUT
203-674-0600

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

DRAWING NO. 1828
SHEET NO. 1 OF 9



INSTALLATION CLIP SPACING:

11 1/2" MAX. O.C. WHEN WINDOW FRAME WIDTH IS GREATER THAN 54";
15" MAX. O.C. WHEN WINDOW FRAME WIDTH IS 54" OR LESS.

BTI BRACKET SPACING:

15" MAX. O.C. FOR ALL WINDOW SIZES

ANGLE CLIP SPACING:

14" MAX. O.C. WHEN WINDOW FRAME WIDTH IS GREATER THAN 69";
15" MAX. O.C. WHEN WINDOW FRAME WIDTH IS 69" OR LESS.

Approved as complying with the Florida Building Code
Date: 06/13/2013
NOA# 13-0304-08
Miami Dade Product Control

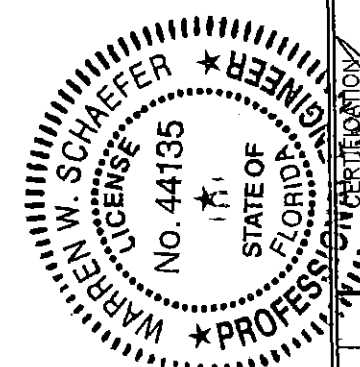
EXTERIOR ELEVATION: SINGLE WINDOW

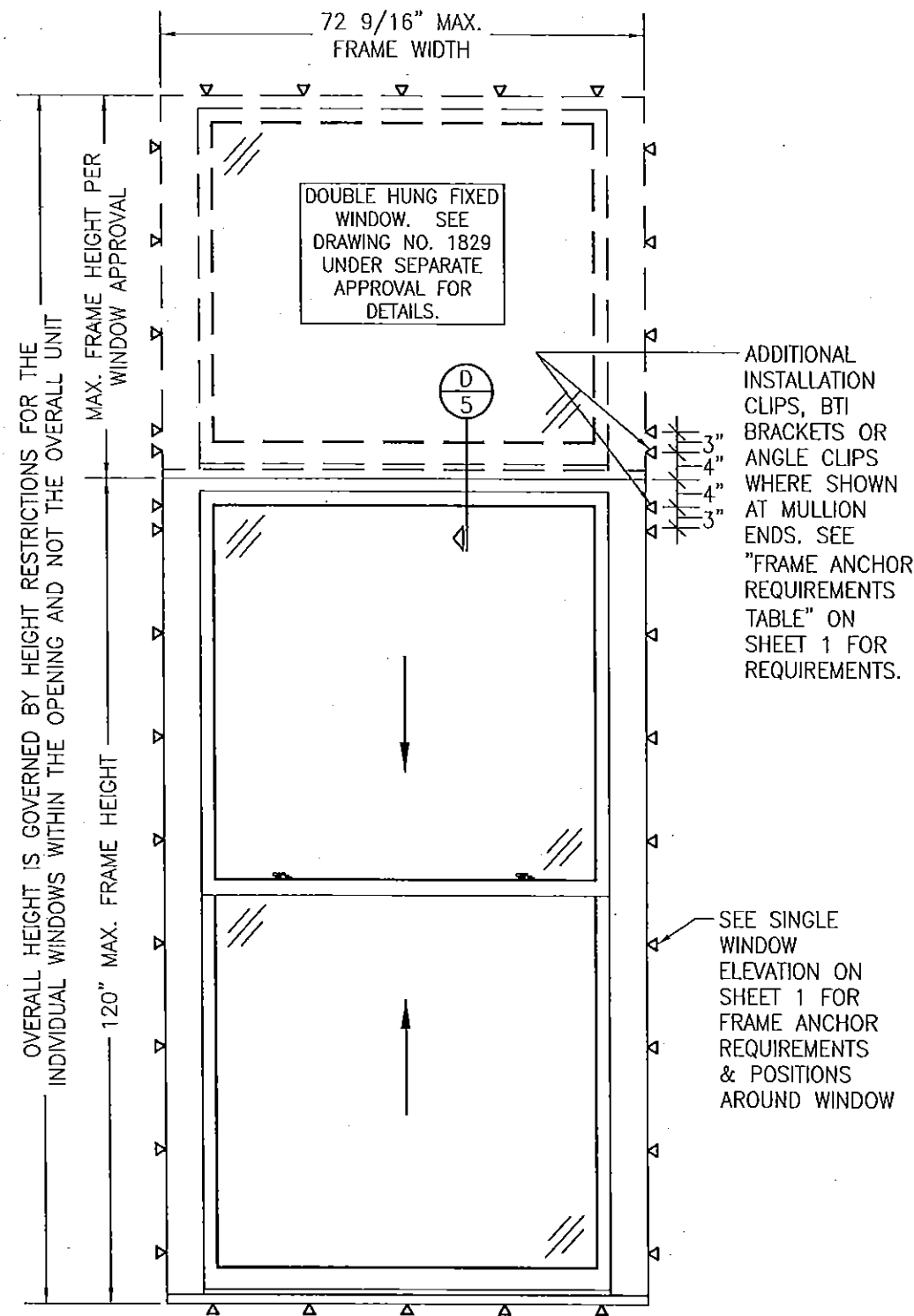
SCALE: 1/2" = 1'-0"

(DOUBLE HUNG WINDOW SHOWN. SINGLE HUNG IS IDENTICAL EXCEPT THE TOP SASH IS FIXED. FOR SINGLE HUNG FIXED SASH DETAIL, SEE "ALTERNATE SECTION B" ON SHEET 4)

ALLOWABLE DESIGN PRESSURE (ALL WINDOW CONDITIONS)

+/-70 PSF





EXTERIOR ELEVATION:
SINGLE WINDOW WITH TRANSOM

SCALE: 1/2" = 1'-0"

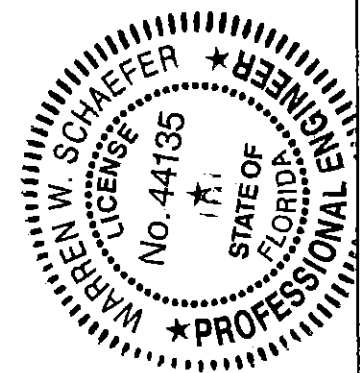
(DOUBLE HUNG WINDOW SHOWN. SINGLE HUNG WINDOW ALSO APPLIES)
(FOR DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATION ON SHEET 1)

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.17
Expiration Date 06/13/2018

By *[Signature]*
Miami Dade Product Control

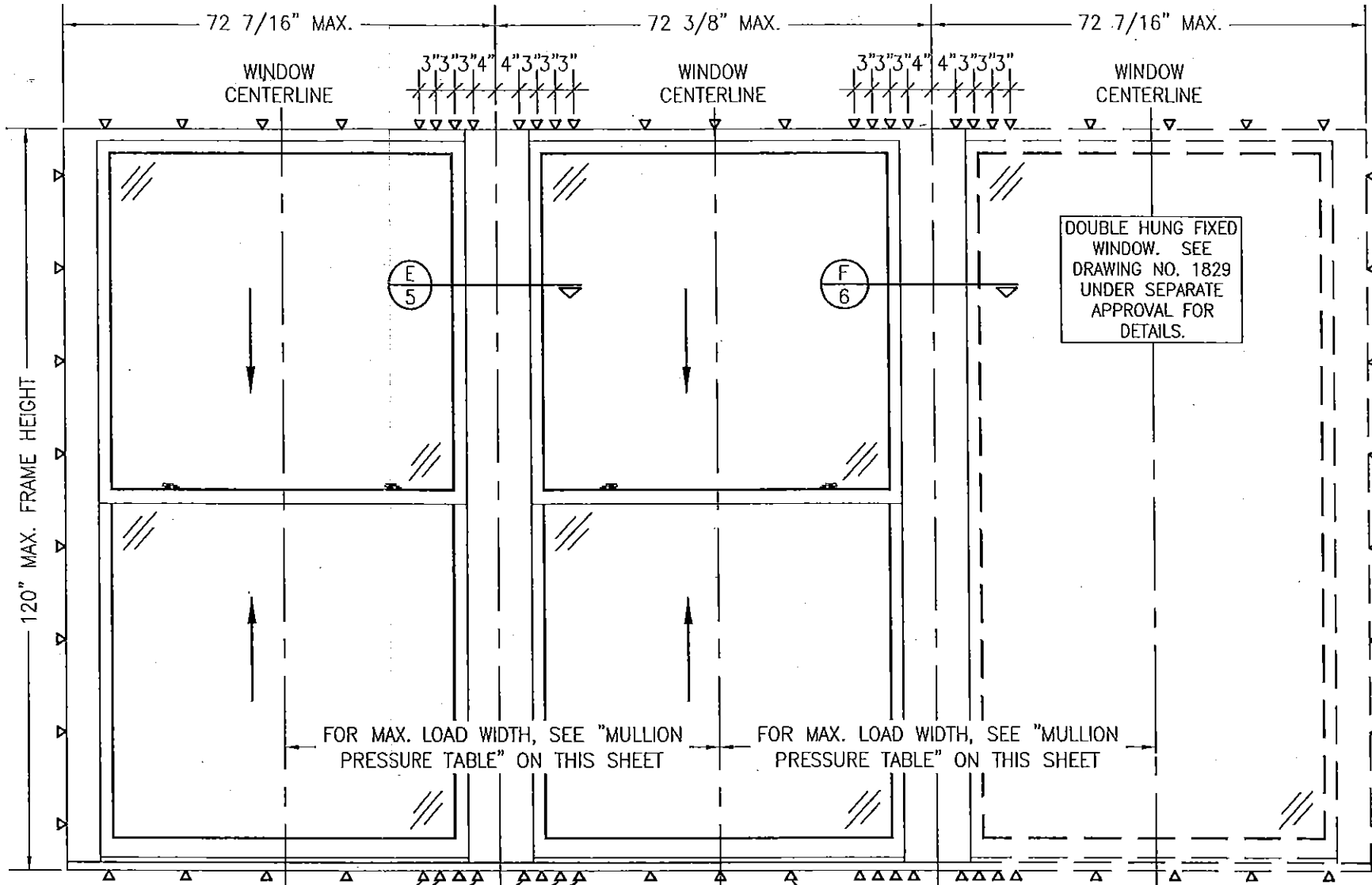
Approved as complying with the
Florida Building Code
Date 06/13/2013
NOAH 13-0304.08
Miami Dade Product Control

By *[Signature]*



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|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------|------|
| DRAWN BY: W.R.M. | | CHECKED BY: W.W.S. | |
| PLOT: 1-24 | | DATE: 07/02/12 | |
| NO. | REVISION DESCRIPTION | BY | DATE |
| | | | |
| | | | |
| | | | |
| | | | |
| DRAWING TITLE: SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | | MANUFACTURER: TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | | JUN 04 2013 WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | |
| DRAWING NO. 1828 | | REV. | |
| SHEET NO. 2 OF 9 | | | |

| VERTICAL MULLION END ANCHOR QUANTITIES | | | | | |
|----------------------------------------|-----------------------------|-----------------------------------------|--------------------|-------------|--------------|
| MAX. WINDOW FRAME HEIGHT (IN.) | MAX. LOAD WIDTH (IN.) | INSTALLATION METHOD & ANCHOR QUANTITIES | | | |
| | | FRAME SCREWS | INSTALLATION CLIPS | ANGLE CLIPS | BTI BRACKETS |
| 120 | 72 1/2 | 8 | 8 | 6 | 4 |
| | 48 | 6 | 4 | 4 | 4 |
| | 34 | 4 | 4 | 4 | 4 |
| 108 | 72 1/2 | 8 | 6 | 6 | 4 |
| | 54 | 6 | 6 | 4 | 4 |
| | 48 | 6 | 4 | 4 | 4 |
| 96 | 72 1/2 | 8 | 6 | 6 | 4 |
| | 66 | 6 | 6 | 6 | 4 |
| | 60 | 6 | 4 | 4 | 4 |
| 84 | 72 1/2 | 6 | 6 | 6 | 4 |
| | 66 | 6 | 4 | 4 | 4 |
| | 49 | 4 | 4 | 4 | 4 |
| 72 | 72 1/2 | 6 | 4 | 4 | 4 |
| | 58 | 4 | 4 | 4 | 4 |
| 66 | 72 1/2 | 6 | 4 | 4 | 4 |
| | 63 | 4 | 4 | 4 | 4 |
| 60 | 72 1/2 | 6 | 4 | 4 | 4 |
| | 69 | 4 | 4 | 4 | 4 |
| 57 | 72 1/2 | 4 | 4 | 4 | 4 |



ADDITIONAL FRAME SHEAR SCREWS, INSTALLATION CLIPS, BTI BRACKETS OR ANGLE CLIPS WHERE SHOWN AT MULLION ENDS. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS. NOTE: ANCHOR QUANTITY AT MULLION ENDS MAY VARY WITH UNIT SIZE. SEE "ANCHOR QUANTITY" TABLE ON THIS SHEET FOR QUANTITY OF ANCHORS REQUIRED.

**EXTERIOR ELEVATION:
MULTIPLE OPERABLE/FIXED WINDOW**

SCALE: 1/2" = 1'-0"
(DOUBLE HUNG WINDOWS SHOWN. SINGLE HUNG WINDOWS ALSO APPLY)

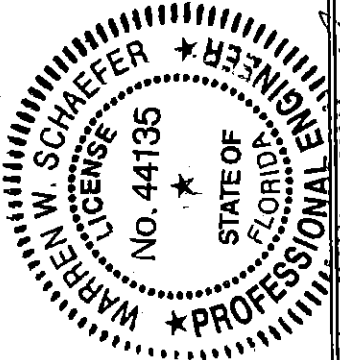
SEE SINGLE WINDOW ELEVATION ON SHEET 1 FOR FRAME ANCHOR REQUIREMENTS & POSITIONS AROUND WINDOW

MULTIPLE SIDE-BY-SIDE UNIT NOTES:

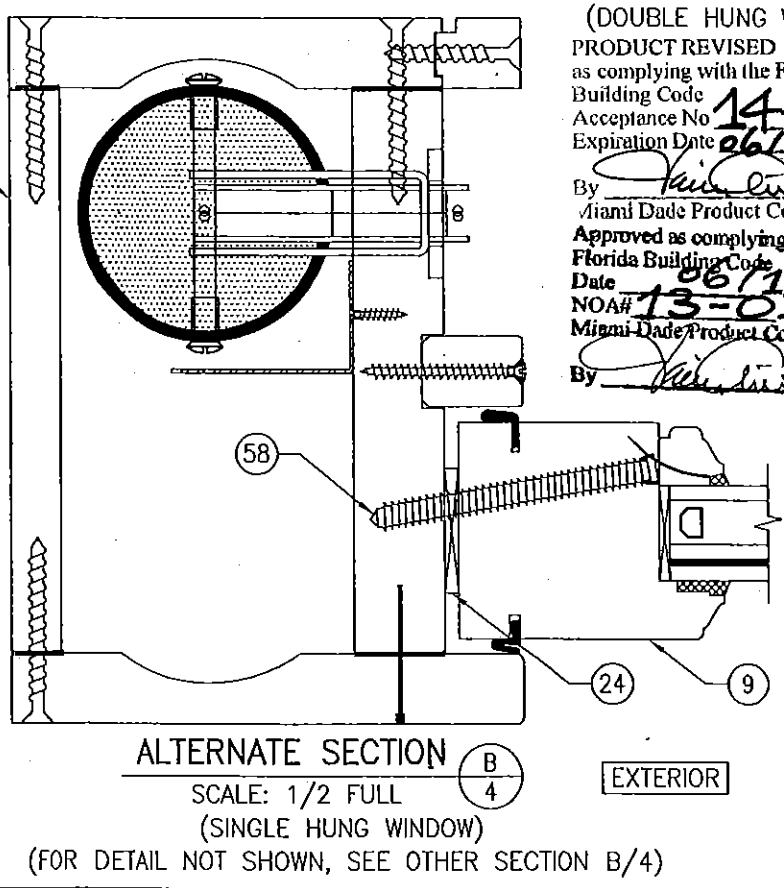
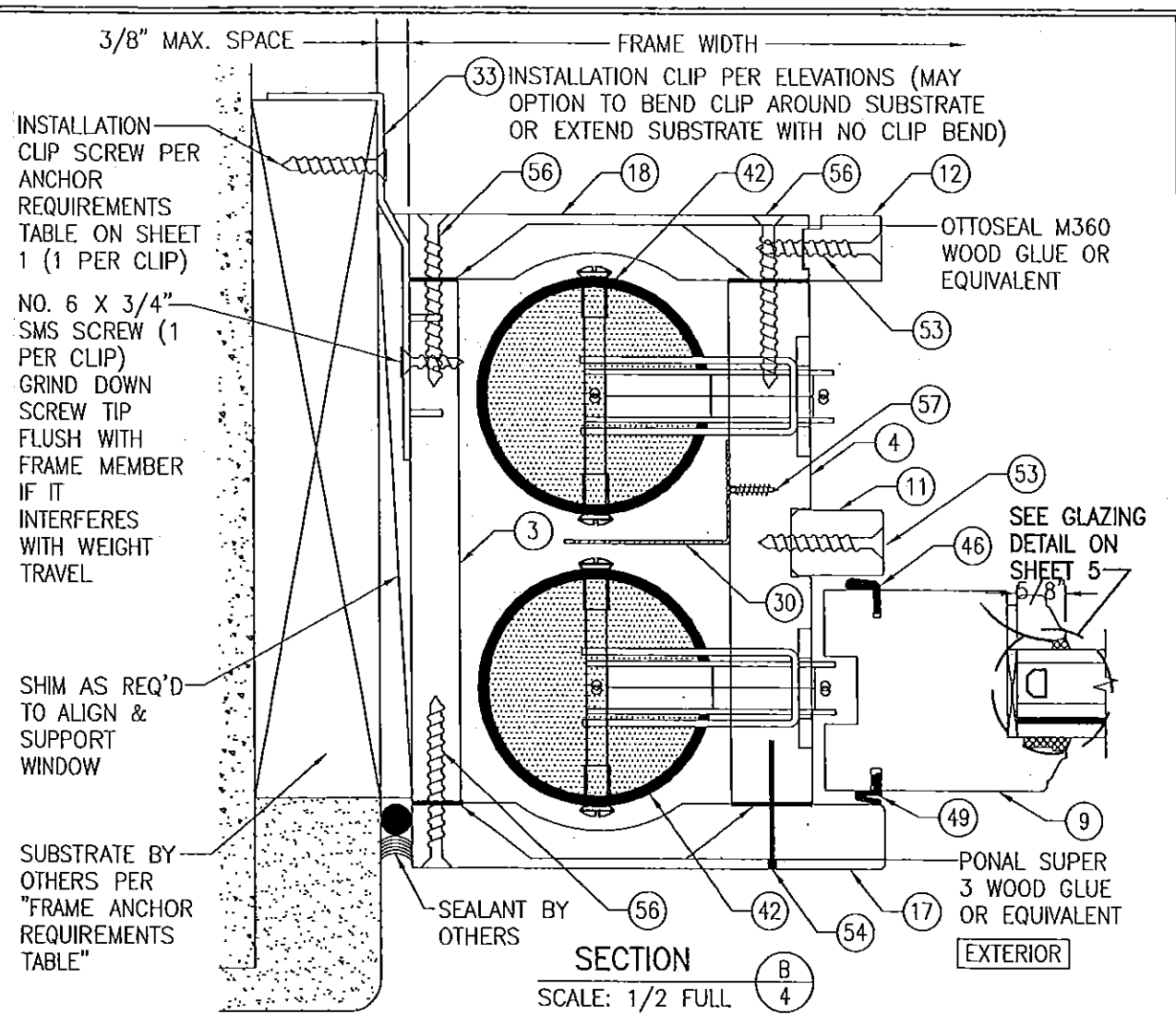
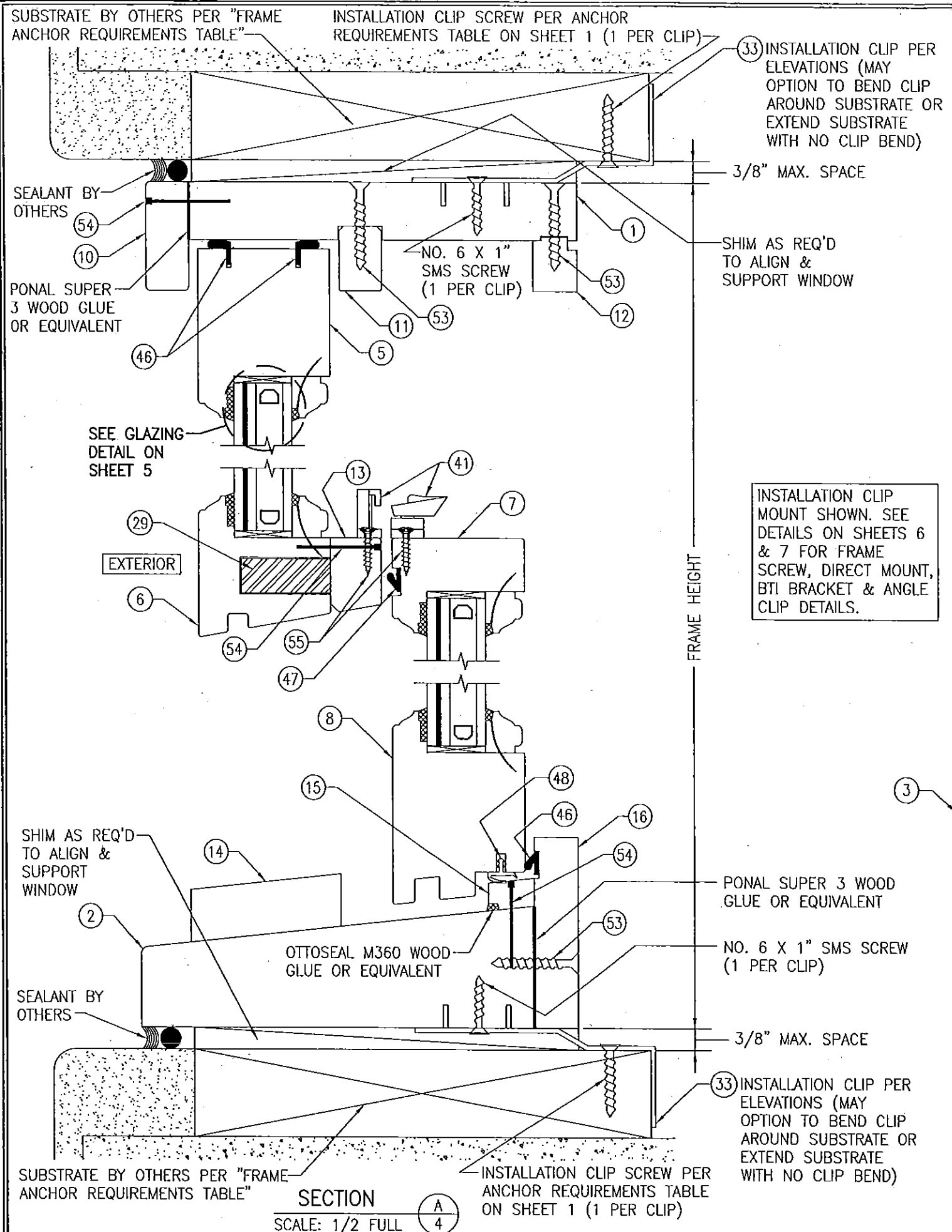
1. FOR ALL DETAIL NOT SHOWN, SEE INDIVIDUAL WINDOW ELEVATION.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED HORIZONTALLY IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.
3. ANY COMBINATION OF FIXED/OPERABLE WINDOWS IN ONE OPENING SHALL APPLY.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. **14-0428.17**
Expiration Date **06/13/2018**
By *[Signature]*
Miami Dade Product Control

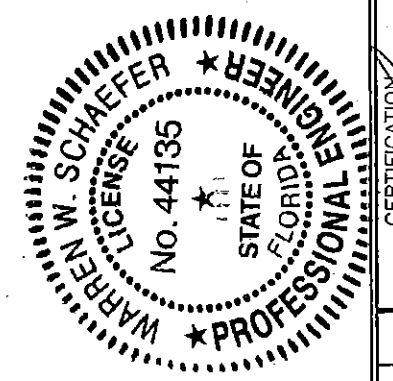
Approved as complying with the
Florida Building Code
Date **06/13/2013**
NOA# **13-0304.08**
Miami Dade Product Control
By *[Signature]*




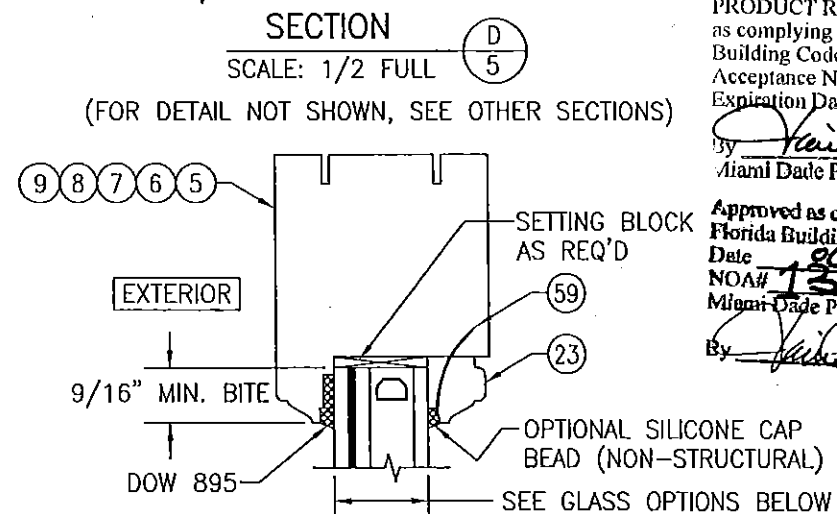
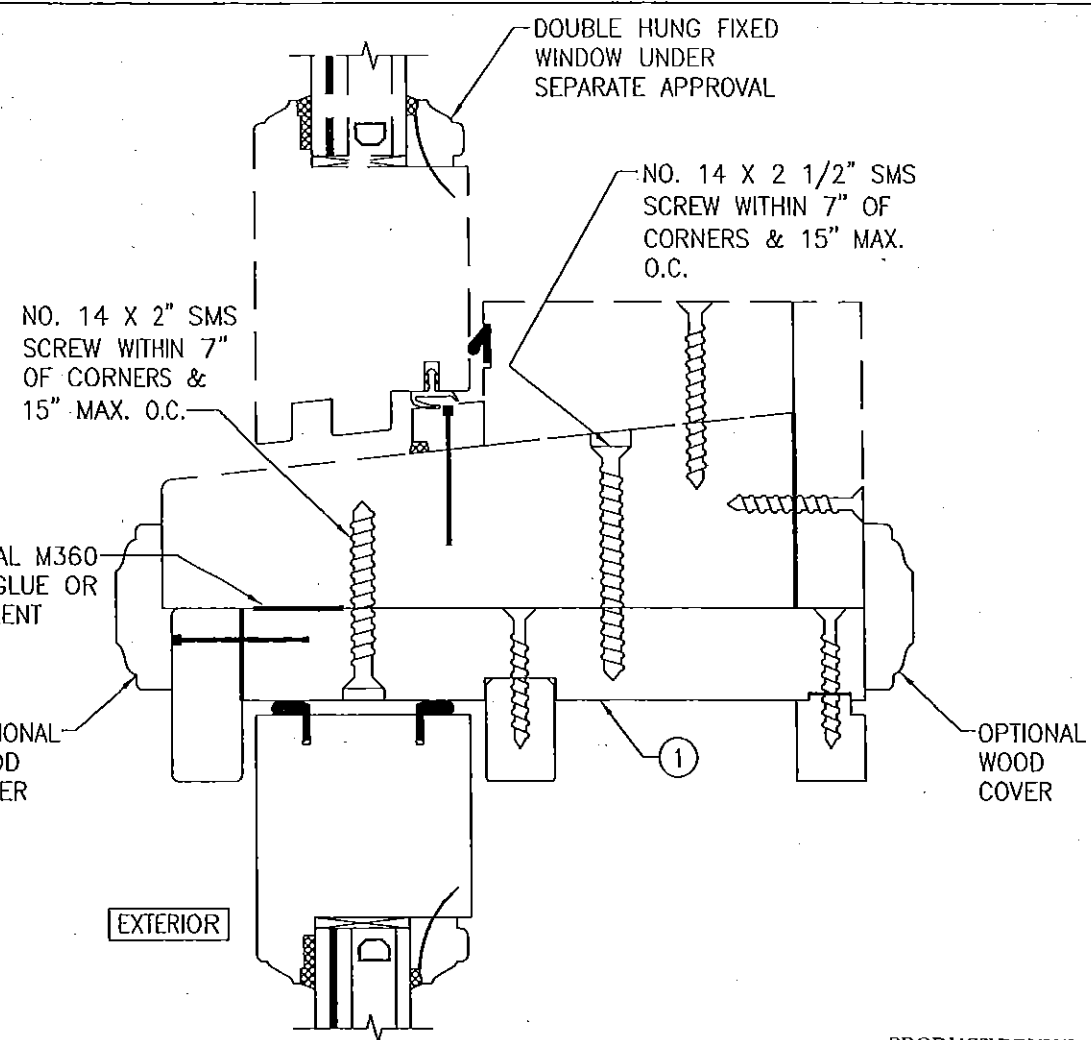
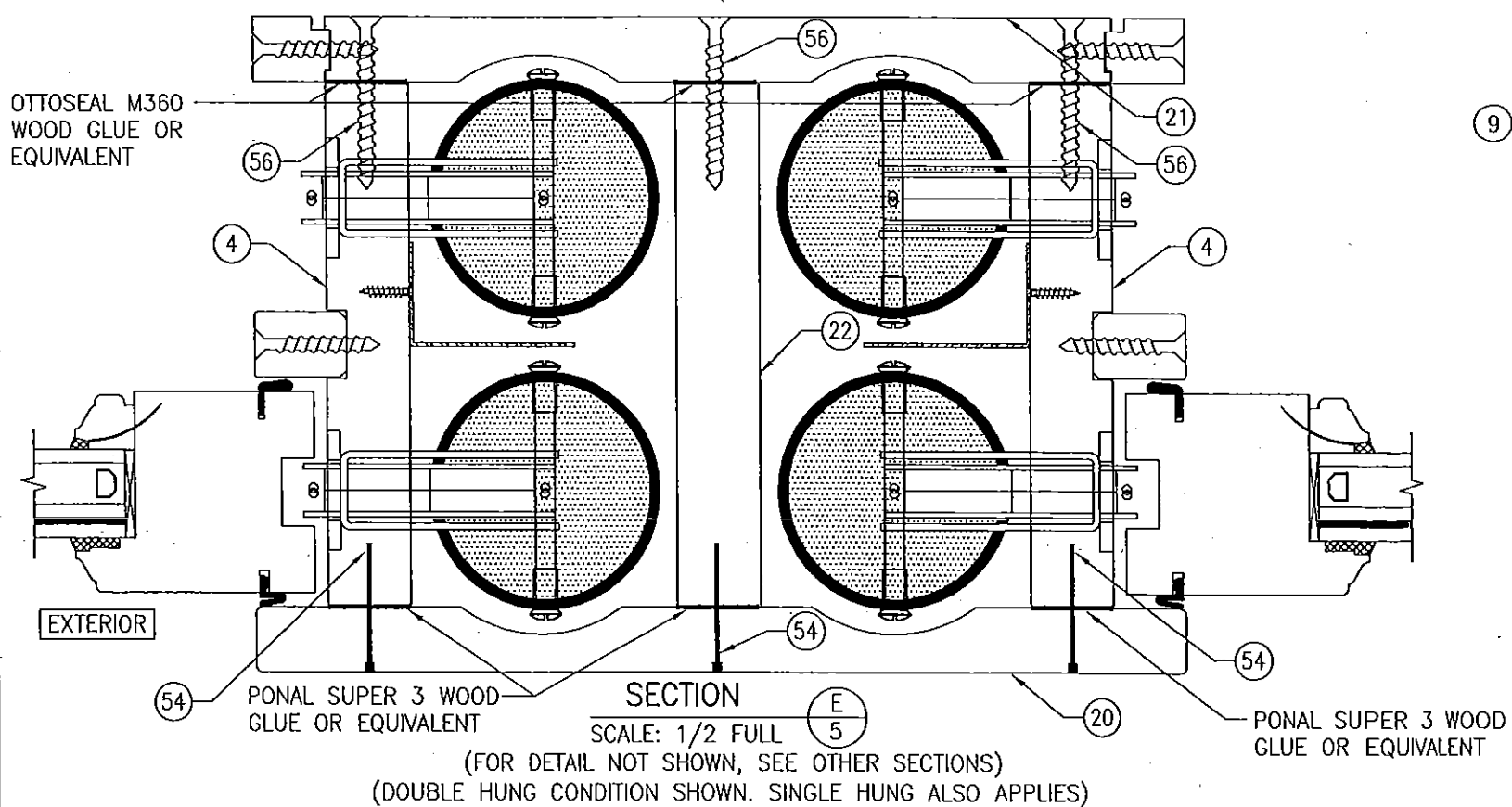
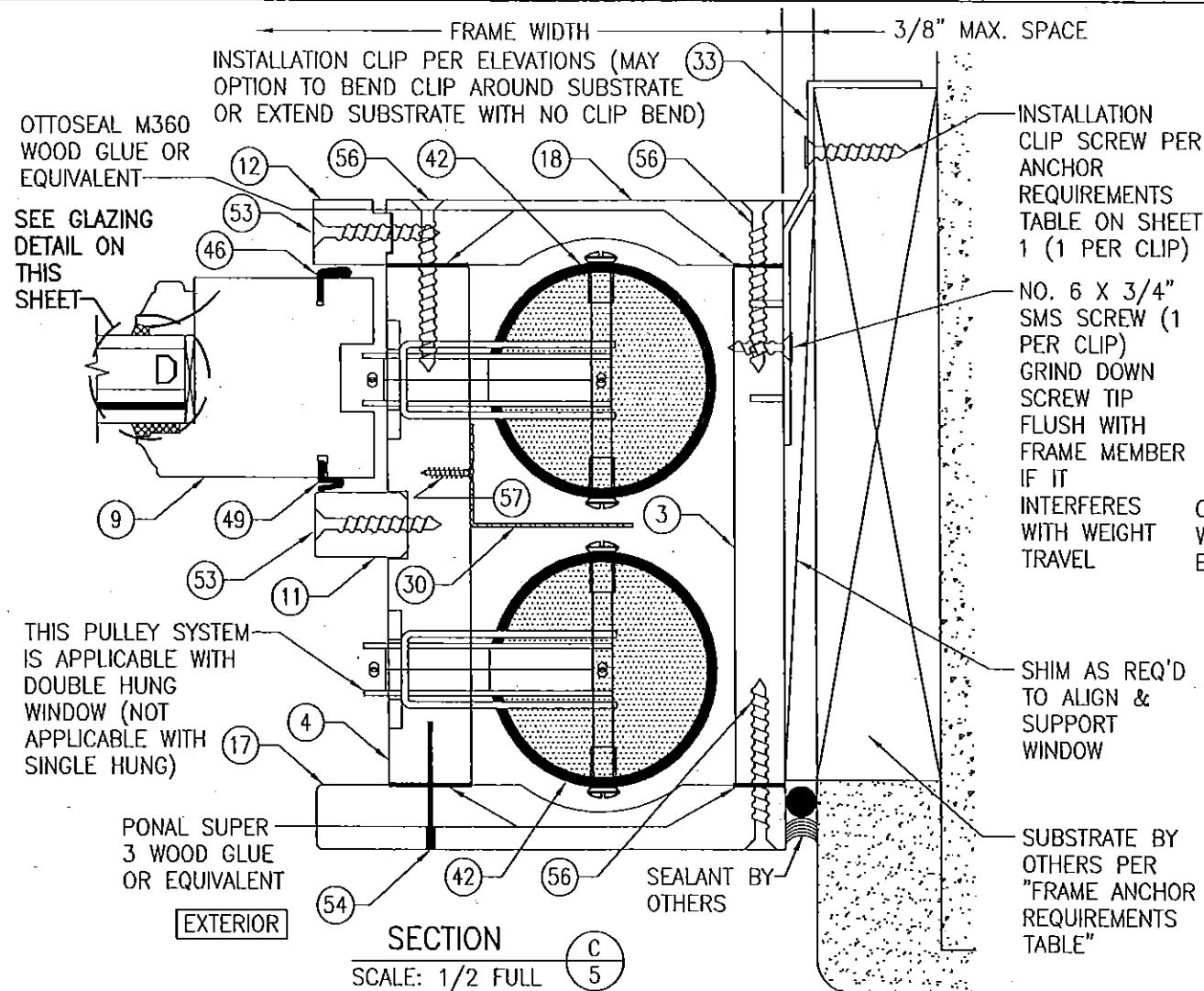
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| DRAWN BY: W.R.M. | | CHECKED BY: W.W.S. | |
| PLOT: 1=24 | | DATE: 07/02/12 | |
| NO. | DATE | BY | REVISION DESCRIPTION |
| | | | |
| DRAWING TITLE: SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | | | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | | MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| JUN 04 2013 | | WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | |
| DRAWING NO. 1828 | | REV. 3 OF 9 | |



SECTION B/4
 SCALE: 1/2 FULL
 (DOUBLE HUNG WINDOW)
 PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 14-0428.17
 Expiration Date 06/13/2018
 By *[Signature]*
 Miami Dade Product Control
 Approved as complying with the
 Florida Building Code
 Date 06/13/2013
 NOA# 13-0364.08
 Miami Dade Product Control
 By *[Signature]*



| | | | |
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| DRAWN BY: W.R.M. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 07/02/12 | |
| NO. | REVISION | DESCRIPTION | DATE |
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| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | | | |
| CERTIFICATION  JUN 04 2013 WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | | | |
| DRAWING NO. 1828 | | REV. | |
| SHEET NO. 4 OF 9 | | | |



GLASS OPTION 1: 1 1/8" LAMINATED I.G. (3/16" AN./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" AN. EXTERIOR; 1/2" AIR SPACE/3/16" AN. INTERIOR)

GLASS OPTION 2: 1 1/8" LAMINATED I.G. (3/16" AN./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" AN. EXTERIOR; 1/2" AIR SPACE/3/16" TEMP. INTERIOR)

GLASS OPTION 3: 1 1/8" LAMINATED I.G. (3/16" HT. ST./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" HT. ST. EXTERIOR; 1/2" AIR SPACE/3/16" TEMP. INTERIOR)

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No. 14-0428.17

Expiration Date 06/13/2018

By *Warren W. Schaefer*

Miami Dade Product Control

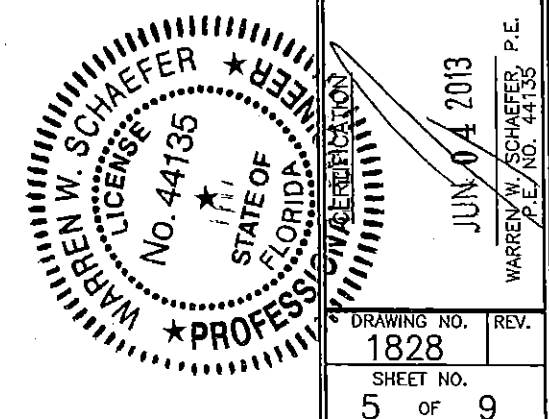
Approved as complying with the Florida Building Code

Date 06/13/2013

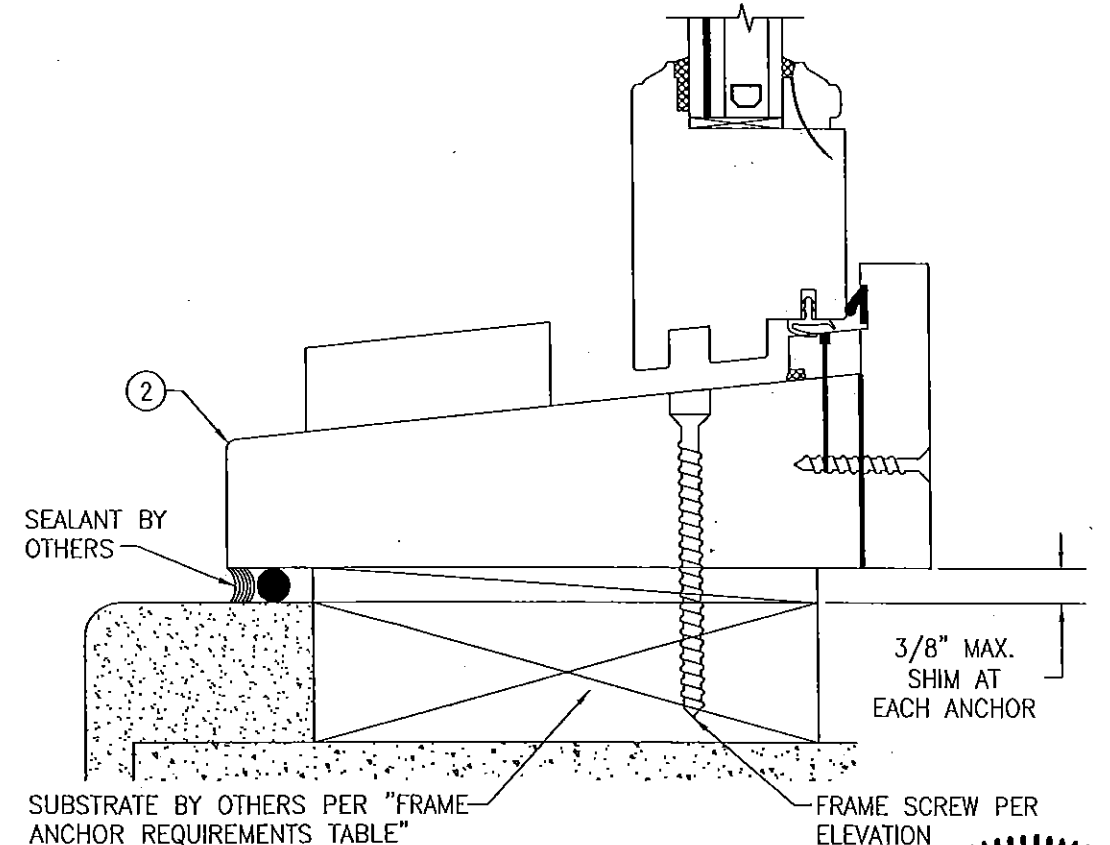
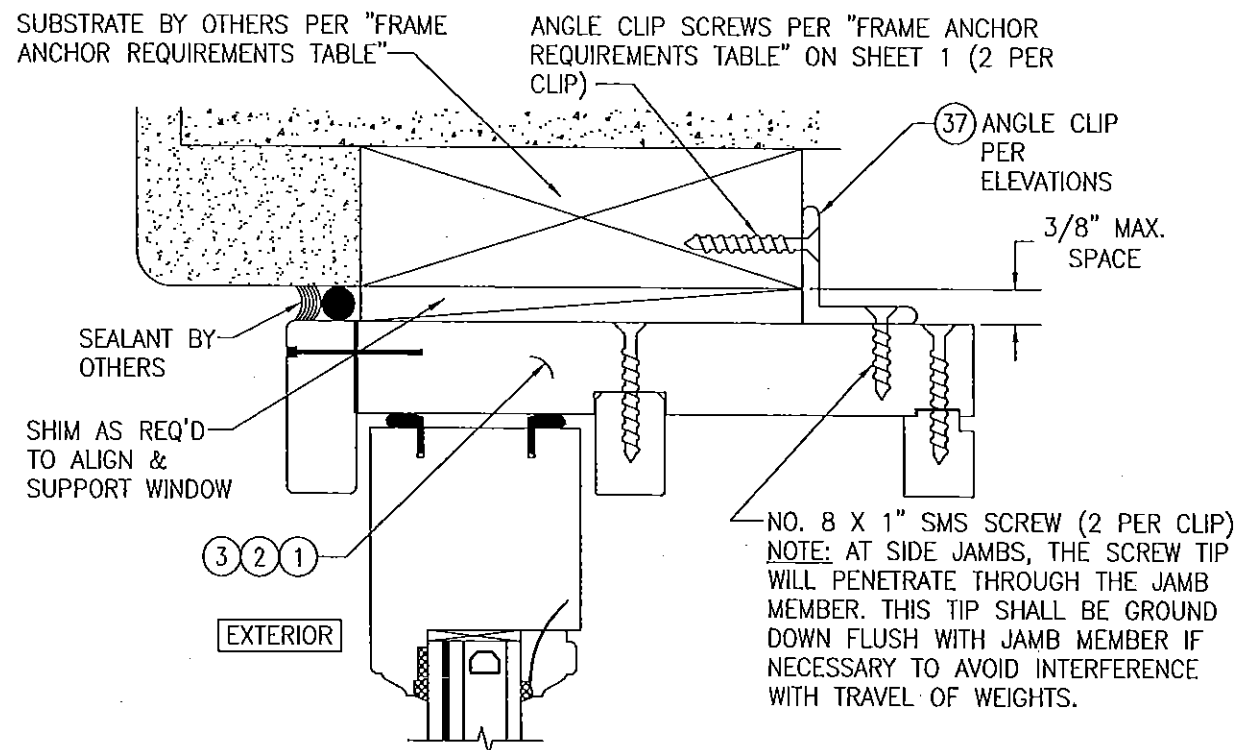
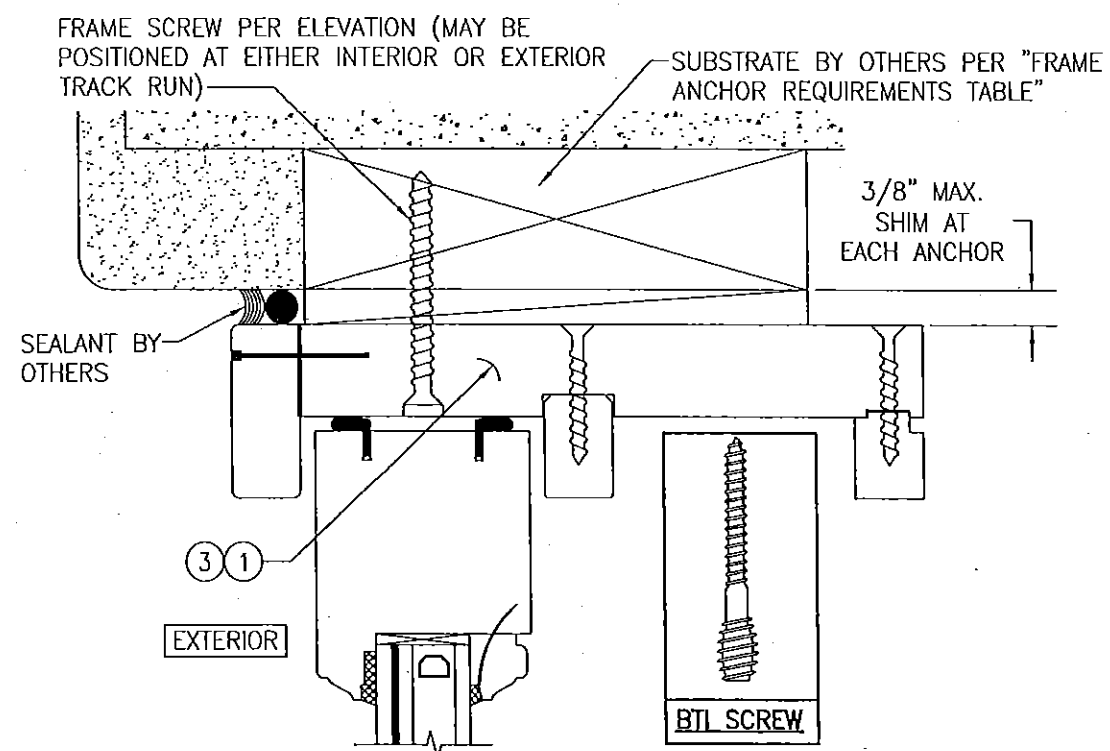
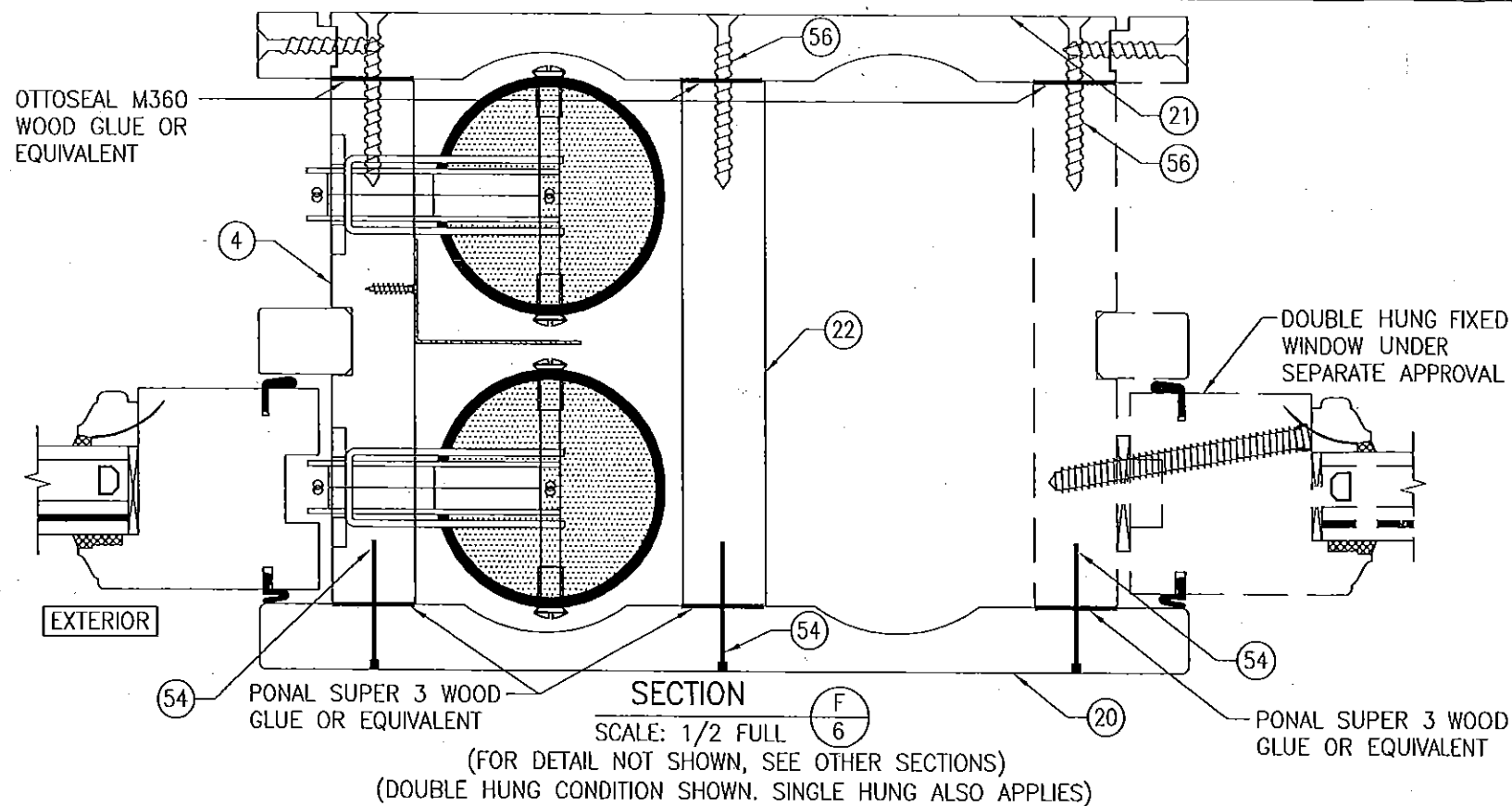
NOAH# 13-0304.08

By *Warren W. Schaefer*

Miami Dade Product Control



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| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1-2 | DATE: 07/02/12 |
| DATE | BY |
| REVISION DESCRIPTION | NO. |
| DRAWING TITLE SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | |
| MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | |
| DRAWING NO. 1828 | |
| SHEET NO. 5 OF 9 | |

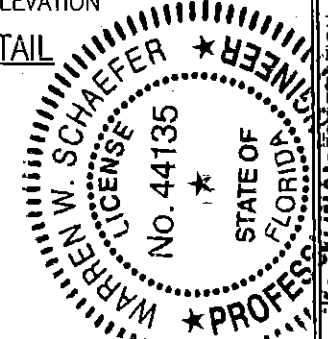


OPTIONAL ANGLE CLIP INSTALLATION DETAIL
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

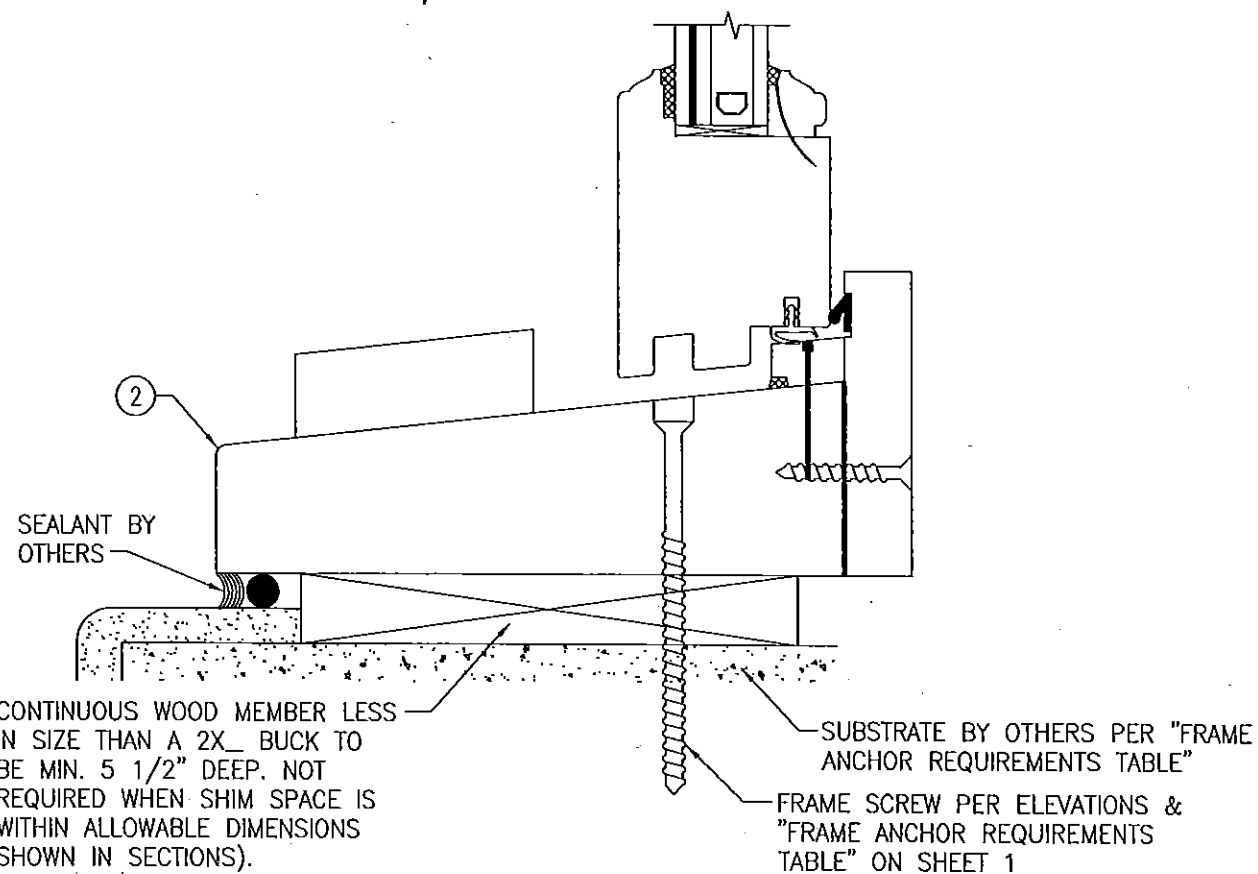
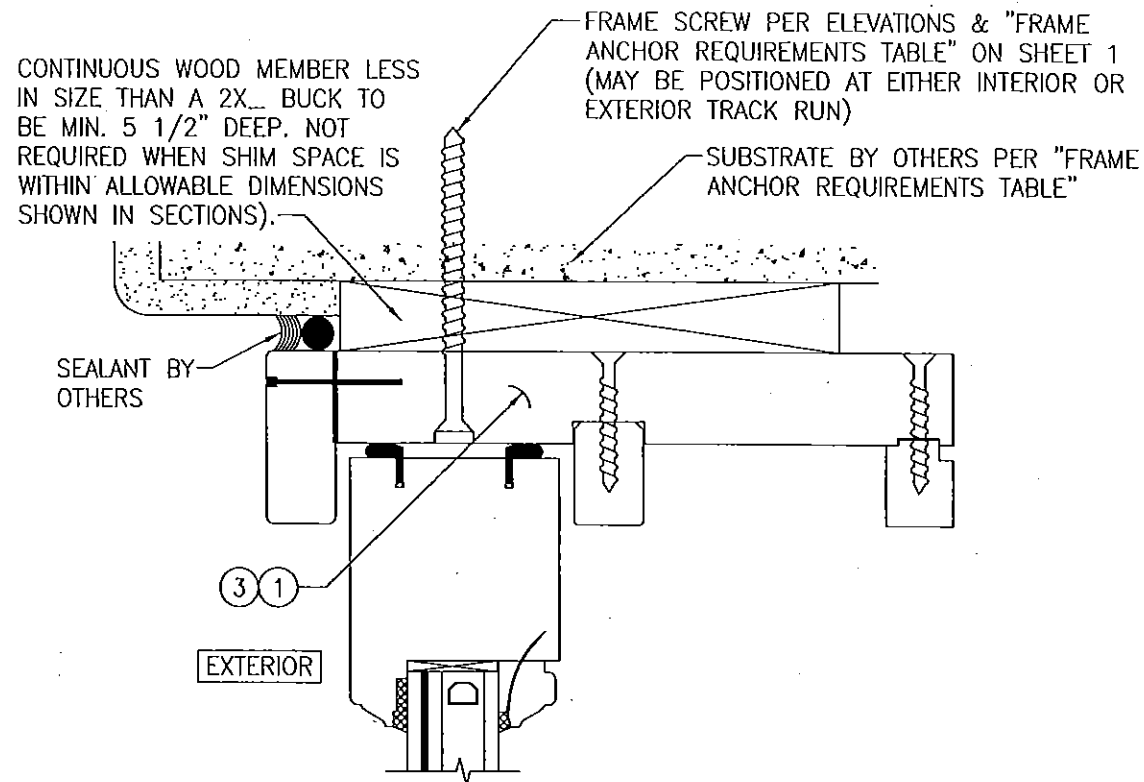
OPTIONAL FRAME SCREW INSTALLATION DETAIL
(FRAME SCREW IS NOT APPLICABLE AT JAMBS)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(WOOD SCREW SHOWN; BTL SCREW ALSO APPLIES)

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Florida Building Code
Date 06/13/2013
NOAH 13-0304.08
Miami Dade Product Control
By [Signature]

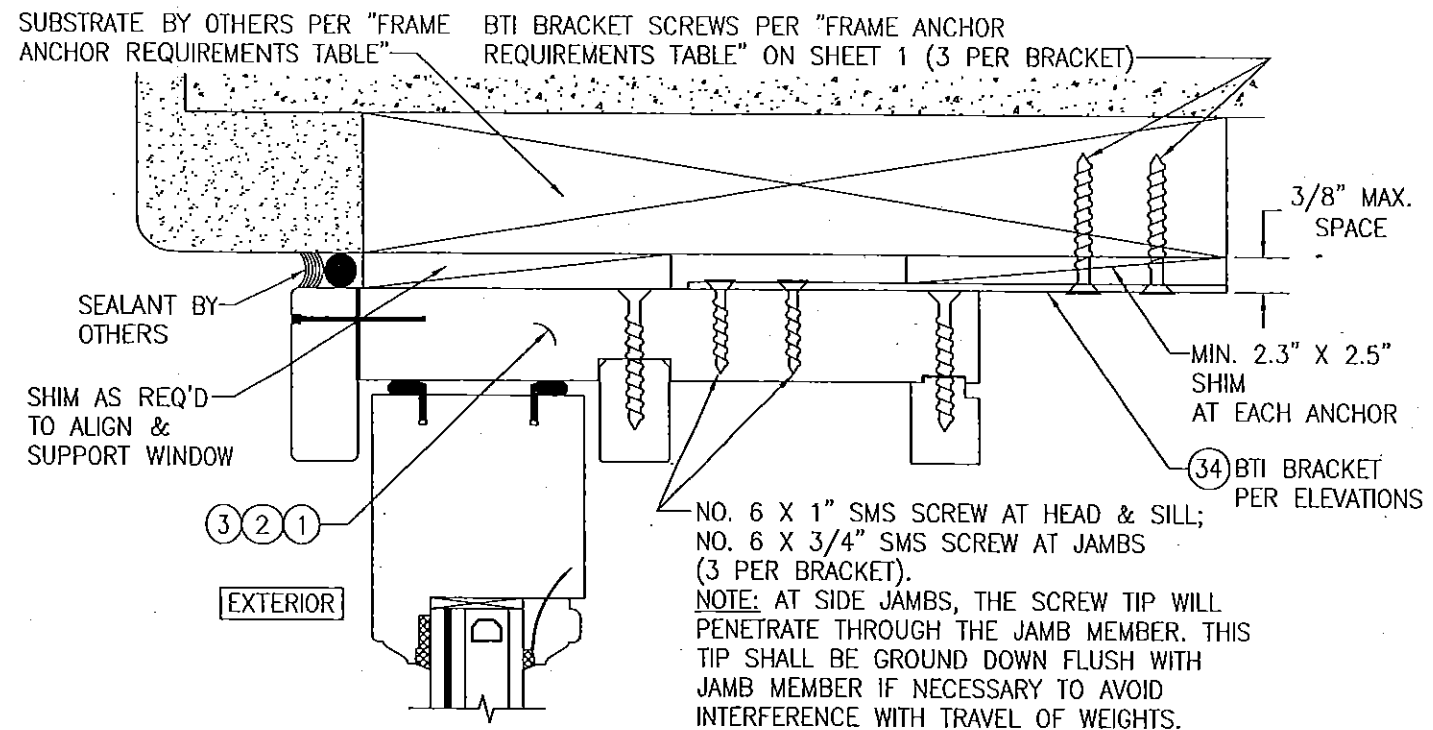
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.17
Expiration Date 06/13/2018
By [Signature]
Miami Dade Product Control



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|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
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| PLOT: 1-2 | DATE: 07/02/12 |
| DATE | BY |
| REVISION DESCRIPTION | NO. |
| DRAWING TITLE SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | |
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| MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| UNALLOCATION | DATE JUN 04 2013 |
| DRAWING NO. 1828 | REV. |
| SHEET NO. 6 | OF 9 |



**OPTIONAL DIRECT MOUNT DETAIL
TO SUBSTRATE WITH SPACER**
(FRAME SCREW IS NOT APPLICABLE AT JAMBS)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

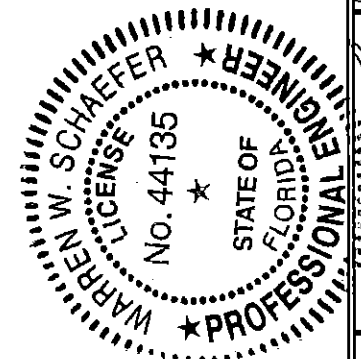


OPTIONAL BTI BRACKET INSTALLATION DETAIL
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

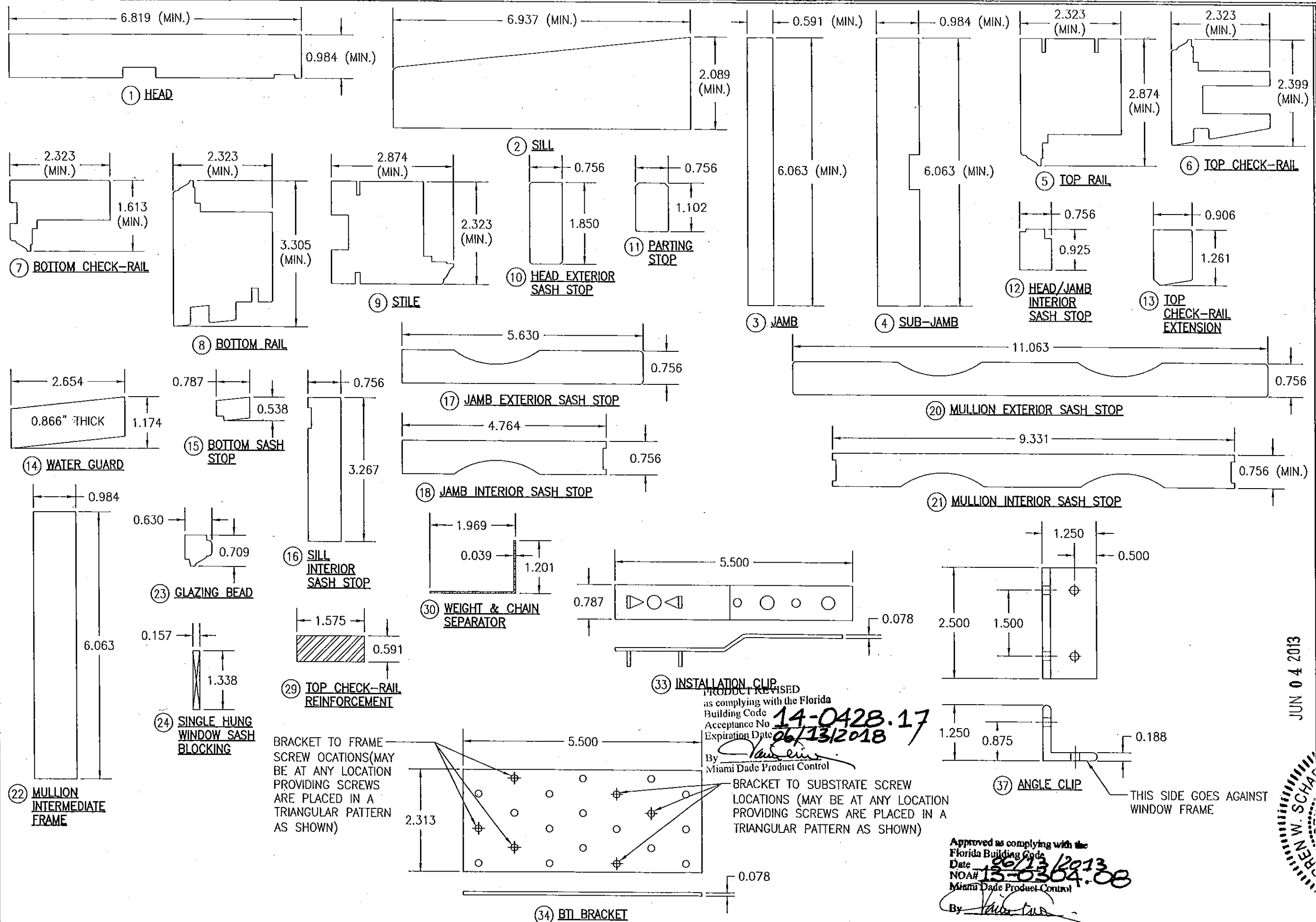
SEE PART #34 BTI BRACKET
DETAIL ON SHEET 8 FOR SCREW
LOCATIONS THROUGH BRACKET

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Florida Building Code
Date 06/13/2013
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Miami Dade Product Control
By *[Signature]*



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| DRAWN BY: W.R.M. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 07/02/12 | |
| NO. | REVISION | DESCRIPTION | DATE |
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| DRAWING TITLE: SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | | | |
| CONSULTANTS W. W. SCHAEFFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | | MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| CERTIFICATION JUN 04 2013 WARREN W. SCHAEFFER, P.E. P.E. NO. 44135 | | DRAWING NO. 1828 SHEET NO. 7 OF 9 | |



PRODUCT REVISED
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Building Code
Acceptance No. **14-0428.17**
Expiration Date **06/13/2018**
By *[Signature]*
Miami Dade Product Control

Approved as complying with the
Florida Building Code
Date **06/13/2013**
NOA# **13-0364.08**
Miami Dade Product Control
By *[Signature]*

JUN 04 2013

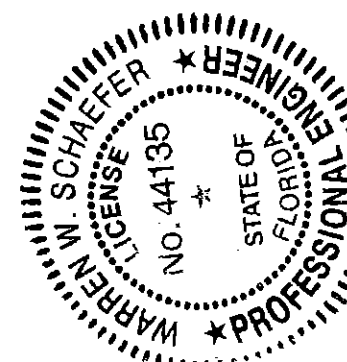
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| DRAWN BY: W.R.M. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 07/02/12 | |
| NO. | REVISION DESCRIPTION | DATE | BY |
| | | | |
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| DRAWING TITLE: SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM IMPACT WINDOW | | | |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) | | MANUFACTURER: TISCHLER UND SOHN (USA) LTD. | |
| 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424 | | SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
| CERTIFICATION No. 44135 | | STATE OF FLORIDA | |
| DRAWING NO. 1828 | | SHEET NO. 8 OF 9 | |

| ITEM # | ITEM DESCRIPTION | MANUFACTURER/NOTES |
|------------------|-----------------------------------|-------------------------------------------|
| PARTS | | |
| 1 | HEAD | WOOD |
| 2 | SILL | WOOD |
| 3 | JAMB | WOOD |
| 4 | SUB-JAMB | WOOD |
| 5 | TOP RAIL | WOOD |
| 6 | TOP CHECK-RAIL | WOOD |
| 7 | BOTTOM CHECK-RAIL | WOOD |
| 8 | BOTTOM RAIL | WOOD |
| 9 | STILE | WOOD |
| 10 | HEAD/JAMB EXTERIOR SASH STOP | WOOD |
| 11 | PARTING STOP | WOOD |
| 12 | HEAD/JAMB INTERIOR SASH STOP | WOOD |
| 13 | TOP CHECK-RAIL EXTENSION | WOOD |
| 14 | WATER GUARD | WOOD |
| 15 | BOTTOM SASH STOP | WOOD |
| 16 | SILL INTERIOR SASH STOP | WOOD |
| 17 | JAMB EXTERIOR SASH STOP | WOOD |
| 18 | JAMB INTERIOR SASH STOP | WOOD |
| 20 | MULLION EXTERIOR SASH STOP | WOOD |
| 21 | MULLION INTERIOR SASH STOP | WOOD |
| 22 | MULLION INTERMEDIATE FRAME | WOOD |
| 23 | GLAZING BEAD | WOOD |
| 24 | SINGLE HUNG WINDOW SASH BLOCKING | WOOD |
| 29 | TOP CHECK-RAIL REINFORCEMENT | 34 KSI STAINLESS STEEL OR A36 STEEL |
| 30 | WEIGHT & CHAIN SEPERATOR | 6063-T6 ALUMINUM |
| 33 | INSTALLATION CLIP | GALVANIZED 54 KSI STEEL |
| 34 | BTI BRACKET | GALVANIZED 54 KSI STEEL |
| 37 | ANGLE CLIP | 6061-T6 ALUMINUM |
| HARDWARE | | |
| 41 | SASH LOCK & KEEPER | PHELPS LKF-14 |
| 42 | WEIGHT & CHAIN SYSTEM: | |
| | SASH STOP | VON MORRIS 2400X605 NL BRASS |
| | PULLEY | PHELPS SP225BB RE BRASS |
| | COUNTER WEIGHT | DOEBLER STEEL TUBE WITH GOSLER SOLID LEAD |
| SEALS & SEALANTS | | |
| 46 | WEATHERSTRIP | SCHLEGEL QWS-250 |
| 47 | WEATHERSTRIP | SCHLEGEL QFS-375 |
| 48 | SILL WEATHERSTRIP | DEVENTER S6961 |
| 49 | WEATHERSTRIP | SCHLEGEL QL-3055 |
| FASTENERS | | |
| 53 | NO. 8 X 1 1/2" SMS OR WOOD SCREW | WITHIN 2" FROM CORNERS & 12" MAX. O.C. |
| 54 | 18 GA. X 1 1/2" S.S. BRAD NAIL | WITHIN 2" FROM CORNERS & 12" MAX. O.C. |
| 55 | NO. 8 X 3/4" SMS OR WOOD SCREW | 2 PER EACH SASH LOCK AND KEEPER |
| 56 | NO. 10 X 2" SMS OR WOOD SCREW | WITHIN 2" FROM ENDS & ONE AT MID-SPAN |
| 57 | NO. 6 X 13/16" SMS OR WOOD SCREW | WITHIN 3" FROM CORNERS & 8" MAX. O.C. |
| 58 | NO. 14 X 3 1/8" BAUTEC WOOD SCREW | WITHIN 4" FROM CORNERS & 12" MAX. O.C. |
| 59 | 18 GA. X 1 1/2" S.S. CURVED NAIL | WITHIN 4" FROM CORNERS & 12" MAX. O.C. |

NOTE: WOOD USED IN TESTING WAS SIPO MAHOGANY WITH A SPECIFIC GRAVITY OF G = 0.62 AND A MODULUS OF ELASTICITY OF E = 1,600,000 PSI. OTHER WOOD SPECIES APPLICABLE FOR USE WITH THIS PRODUCT ARE THOSE WITH A SPECIFIC GRAVITY OF 0.62 AND MODULUS OF ELASTICITY OF 1,600,000 PSI OR GREATER. ALL WOOD IS MINIMUM GRADE 2 MILLED BY TISCHLER UND SOHN TO SELECT.

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Miami Dade Product Control
By Warren W. Schaefer



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| PLOT: 1=2 | | DATE: 07/02/12 | |
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| DRAWING TITLE: SINGLE & DOUBLE HUNG WEIGHT & CHAIN SYSTEM | | | |
| IMPACT WINDOW | | MANUFACTURER | |
| CONSULTANTS | | TISCHLER UND SOHN (USA) LTD. | |
| W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) | | SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600 | |
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| SHEET NO. 9 | | OF 9 | |